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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,729	07/20/2004	Bo Widcn	0091-0239PUS1	6842

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BIRCH STEWART KOLASCH & BIRCH  
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FALLS CHURCH, VA 22040-0747

EXAMINER
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GALL, LLOYD A

ART UNIT	PAPER NUMBER
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3676

NOTIFICATION DATE	DELIVERY MODE
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05/04/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

**Office Action Summary**

Application No.

10/500,729

Applicant(s)

WIDEN, BO

Examiner

Lloyd A. Gall

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 7, 8, 15, 16 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-14 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2004 and 19 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

Claims 1, 12, 13, 14 and 17 are objected to because of the following informalities: in claim 1, lines 16-17, it is not clear whether "an associated pair of body segments" is referring to the "pair of adjacent body segments" of claim 1, line 11, or not. In claim 1, line 29, "portions" should read --fingers--. In claim 12, line 25, "portions" should read --fingers--. In claim 13, lines 1-2, "for use in" and "said lock comprising" is not clear whether the lock is being positively claimed, or not. The claim is currently assumed to be not positively claiming the lock. Clarification is required. In claim 13, line 1, a comma should follow "system". In claim 13, lines 11-12, there is no antecedent basis for "said coded surface". See claim 13, line 29 also. In claim 13, line 27, "portions" should read --fingers--. In claim 13, line 33, there is no antecedent basis for "said side surface". In claim 13, line 34, there is no antecedent basis for "said side wall". In claim 14, line 2, "said respective contact" is incomplete. In claim 17, lines 1-3, "for use in" and "comprising: a cylinder shell" is unclear whether the lock is being positively claimed or not. The claim is currently assumed to be not positively claiming the lock. In claim 17, line 11, there is no antecedent basis for "said coded surface". See claim 17, line 28 also. In claim 17, line 26, "portions" should read --fingers--. In claim 17, line 33, "longitudinally" is misspelled. Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13, 14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Olson (734).

It is first noted that claims 13, 14 and 17 are regarded as positively claiming only a key and a key blank. The specifics of the key lock are regarded as being only inferentially claimed. Further, the key and blank of Olson from which the key was made are capable of use with the specifics of the lock that are inferentially claimed in claims 13, 14 and 17. Olson teaches a key and a key blank from which the key is made cooperating with a lock cylinder including a shell 6, a key plug 8 having locking tumbler assemblies 18, 19 located within the same cavity 16 of rows of cavities 16, a key slot 15 receiving a key 24 having grooves 25 located on its sides, the tumblers having body segments with mutually engaging flat surface portions sliding upon one another and contact finger portions 23 engaged by the coded surface portions of slots 25 of the key. The tumblers are located on each side of the key slot. The longitudinal groove 25 in fig. 7 of the key defines neighboring code surface portions for displacing the tumblers to different elevational positions.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 6 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson (734) in view of Droske (915) and Gysin (852).

Olson teaches a key and a key blank from which the key is made cooperating with a lock cylinder including a shell 6, a key plug 8 having locking tumbler assemblies 18, 19 located within the same cavity 16 of rows of cavities 16, a key slot 15 receiving a key 24 having grooves 25 located on its sides, the tumblers having body segments with mutually engaging flat surface portions sliding upon one another and contact finger portions 23 engaged by the coded surface portions of slots 25 of the key. The tumblers are located on each side of the key slot. The longitudinal groove 25 in fig. 7 of the key defines neighboring code surface portions for displacing the tumblers to different elevational positions. Droske teaches a pair of tumblers (11, 12...etc.) located in the same cavity as seen in fig. 1, wherein each tumbler includes a separate spring 22 as seen in fig. 2, wherein the springs contact only one tumbler, and the pairs of tumblers are elevationally movable independently of each other in the cavity. Gysin teaches contact portions 22 as seen in fig. 1, wherein the contact portions 22 are inwardly spaced from the end faces of the tumblers, whereby all contact portions 22 are axially separated in the longitudinal direction of the key plug. It would have been obvious to modify the tumbler pairs of Olson to include a separate spring for each tumbler, wherein the springs contact only one tumbler, and the tumblers are elevationally movable independently of each other in the same cavity, in view of the teaching of Droske, the motivation being to optimize the range of movement of each tumbler and the number of tumbler combinations usable with the key. It would have been obvious to modify the

contact portions 23 of Olson such that they are axially separated from one another in the longitudinal direction of the key plug, in view of the teaching of Gysin, the motivation being to optimize the number of different positions that adjacent tumblers of a pair may be displaced and the number of key codes that may be incorporated.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson (734) in view of Droske and Gysin as applied to claim 3 above, and further in view of Vonlanthen (986).

In fig. 3, Vonlanthen teaches tumbler body segments having a part-cylindrical shape 10 to be guided by wall portions of the cavities in which they slide. It would have been obvious to modify the tumbler segments of Olson to include part-cylindrical surface portions, in view of the teaching of Vonlanthen, the motivation being to strengthen the tumbler segments with additional mass.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson (734) in view of Droske and Gysin as applied to claim 1 above, and further in view of Widen (816).

In fig. 10, Widen teaches a tumbler 105 cooperating with a side bar 108. It would have been obvious to utilize a side bar(s) with the lock of Olson, in view of the teaching of Widen, the motivation being to optimize the picking resistance of the lock cylinder.

Applicant's arguments filed March 6, 2007 have been fully considered but they are not persuasive. In response to applicant's remarks on page 16, as set forth in lines 1-4 of the above rejection of claims 13, 14 and 17 with Olson, claims 13, 14 and 17 positively claim only a key and a key blank. The details of the lock are regarded as

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being only inferentially claimed. Further, the key and key blank of Olson are clearly capable of actuating the inferentially claimed lock of claims 13, 14 and 17. As set forth by applicant on page 16, line 2 of the REMARKS, a key and blank are claimed "as used with" the lock. The lock is not regarded as being positively claimed. The remainder of this paragraph continues to argue details of a lock which are not being positively claimed. It is respectfully submitted that applicant cannot argue the patentability of a key and a key blank by setting forth details of a lock. Accordingly, in response to the argument on page 16, lines 12-13, it is submitted that the examiner has considered all of the limitations of the claims.

In response to the argument on page 17, lines 3 and 18, it is noted that this limitation of not being connected to each other has been deleted from the claims, and is concerned with the lock anyway, and not the key and key blank.

In response to the argument on page 18, lines 1-3, it is not clear what structure to the positively claimed key and key blank is not taught by the Olson reference.

It is respectfully submitted that the remarks on page 18-21 argue against the references individually, and that arguments are not set forth against the references as combined in the rejection. In particular, Droske was relied upon in the rejection to teach a separate spring to bias each tumbler individually, to meet the "freely movable independently" limitation of the claims. Accordingly, whether the type of tumbler of Droske is different from Olson is not accorded patentable weight. As combined, Olson as modified by Droske teaches the claimed tumbler segments as movable independently of one another. Similarly with respect to the arguments at the top of

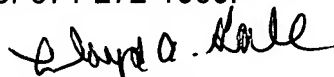
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page 19, Gysin was relied upon only as a teaching of axially spacing contact fingers from one another. Accordingly, as combined, Olson as modified by Gysin teaches the claimed contact fingers as being at a longitudinal distance from one another, as is claimed in the lock claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lloyd A. Gall whose telephone number is 571-272-7056. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Lloyd A. Gall  
Primary Examiner  
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April 27, 2007